ENERGY AND UTILITIES ADVISORY SERVICES

Nuclear Energy

ADVISORY

In 2007 18% of overall electricity production in the Central and Eastern European (CEE) countries came from nuclear power. Due to the important nature of nuclear power in the region it is of great importance for both future industry leaders and investors that they be acquainted with the current situation and the future prospects of the nuclear sector.

Increasing population levels and rapid economic growth worldwide point toward a strong increase in global electricity demand. Although estimates for this growth vary, experts agree that a significant increase in energy consumption is to be expected in the coming decades. The increasing awareness of the dangers of global warming is also shifting market demand toward energy sources with low carbon dioxide emissions such as nuclear power which does not directly emit carbon dioxide.

Many studies have found nuclear power to be one of the most cost competitive among base-load electricity generation technologies, this cost advantage is further improving due to increasing fossil fuel prices and with the introduction of carbon dioxide emission fees. Additionally, nuclear power is not as sensitive to changes in oil prices in contrast to fossil fuel energy sources.

The successful reduction of greenhouse gas emissions from the electricity sector can only be achieved on the basis of increased use of low carbon dioxide emission technologies such as nuclear energy, clean coal and renewables. Nuclear energy is currently the largest low-carbon dioxide energy source in Europe and the European Parliament has stressed its potential role in combating climate change. Abandoning nuclear power will make it impossible to achieve the objectives set forth regarding reductions in greenhouse gas emissions and the combating of climate change. The known global uranium reserves are estimated to be sufficient for more than 200 years, these reserves are primarily located in stable countries that make feasible future options to diversify political risks to security of supply or make it possible to reach compromises between risk, price and location of nuclear fuel sources.

Great technological improvements are expected with the introduction of a new type of nuclear reactor generation. The expected benefits includes less cost, a wider range of reactor capacity, better performance and improved safety measures. Within this context, many market actors believe that increasing energy demand can be fulfilled with an upsurge in nuclear energy production, often referred to as a "nuclear renaissance".

In the Central and Eastern European countries there is significant potential for nuclear energy while local and national acceptance is high. Therefore the nuclear energy sector offers a wide range of opportunities for professional investors including well established energy companies, construction companies and equipment manufacturers. It also offers opportunities for financial investors such as private equity, venture capital, infrastructure funds, banks and other financial institutions.

kpmg.hu

KPMG`s Power & Utilities Centre of Excellence located in Budapest working together with KPMG in London and KPMG in Moscow, can provide advisory services to support investments in the nuclear electricity generation sector:

- Advising on new build, useful life and capacity extension projects.
- Analysis of the current regulatory regime and future expected trends.
- License acquisition, support of negotiation with regulators and with other licensing authorities.
- Feasibility study preparation.
- Market analysis and forecast.
- Competitor analysis.
- Business plan preparation and review.
- Financial and commercial structuring of new build (e.g., discussions with finance providers and partners); includes an understanding of the major risks (e.g., off-take; regulatory; development; construction) and challenges associated with timely new build.
- Modeling existing nuclear power stations – includes understanding of: load factors; plant costs (capex vs. opex); fuel costs; life extensions etc.
- Modeling of new build nuclear power stations – includes understanding of: pre-development costs; construction costs and timetables; waste and decommissioning costs; outages; refueling issues as well as running costs.
- Arranging finance, searching for equity partners.
- Project management.
- Coordination of engineering firms and legal support.
- Market entry and exit strategies.
- Advising on decommissioning.
- Analysis of costs associated with nuclear clean up.
- Advising on M&A transactions including power stations and the supply chain integration.
- Advising on Public Relations and communications aspects related to nuclear power plants.

Please contact:

Péter Kiss,
Global Power & Utilities Sector Leader

Head of Sector, Energy, KPMG in Central and Eastern Europe

Partner, KPMG in Hungary

Tel.: +36 (1) 887-7384
E-mail: energy@kpmg.hu

kpmg.hu